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November 27, 1996

William F. Caton
Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Dear Mr. Caton:

Enclosed please find reply comments on WT Docket No. 96-198, In the Matter of Implementation of Section 255 of the Telecommunications Act of 1996 on Access to Telecommunications Services, Telecommunications Equipment, and Customer Premises Equipment by Persons with Disabilities.

Thank you for this opportunity to comment.

Sincerely,

Judy Harkins

Judith E. Harkins, Ph.D.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Implementation of Section 255 of the	)	
Telecommunications Act of 1996	)	WT Docket No. 96-198
	)	
Access to Telecommunications Services,	)	
Telecommunications Equipment, and	)	
Customer Premises Equipment	)	
by Persons with Disabilities	)	

Comments of the Technology Assessment Program
Gallaudet University

The Technology Assessment Program is part of the School of Communication, Department of Communication Arts, at Gallaudet University. Our group has for the past 11 years conducted research and worked on issues pertaining accessible telecommunications, particularly as they affect deaf and hard of hearing people. TAP has worked extensively with the telecommunications industry on service and technology development, standards, and policy issues. We participate in the U.S. Access Board's Telecommunication Access Advisory Committee (TAAC), and are one of the partners in a research and engineering center on accessible telecommunications funded by the National Institute on Disability and Rehabilitation Research.

We fully appreciate that the Telecommunications Act of 1996 de-regulates telecommunications in order to stimulate innovation and competitiveness in U.S. industry. We also understand that Congress saw it fit to include reasonable safeguards for people who have disabilities, because the importance of accessible technology has been clearly demonstrated.

The FCC's involvement in accessibility issues in the past few years has had a significant positive impact on the lives of many people with disabilities. On issue after issue, the FCC's attention to accessibility of telecommunications has brought industry

representatives together with consumer advocates, researchers, and others to an extent that would not have happened otherwise. All commenting parties seem to agree that this type of partnership is valuable, but it does not happen in a vacuum.

As much as we would like to hope that the marketplace and volunteer efforts alone will result in the implementation of Section 255, there is virtually no evidence from past experience that this will happen. Attention to telecommunications and user-interface accessibility has followed government action, or resulted from the possibility of impending government action. Companies have worked on access issues when the government becomes a purchaser of access features, as under Section 508 and the ADA, which are leading companies to investigate TTY-accessible voice mail and to seriously address accessible user interfaces in the computer environment. In a few cases where government has mandated built-in accessibility, as with the Television Decoder Circuitry Act, the process went smoothly once the policy went into effect, and costs to manufacturers are now negligible. Where the FCC has had a legislated responsibility to regulate, such as the areas of hearing-aid compatibility with telephones and telephone relay service, the agency has been instrumental in bringing companies to the table for negotiation, cooperative problem-solving, and improved accessibility.

It is harder to find examples of voluntary (completely devoid of any government attention) or solely market-driven efforts toward accessibility of telecommunications equipment. Several years ago, standards expert Richard P. Brandt embarked on the development of built-in TTY access in data modems, by working within the industry-standards process. As a result of his efforts, in 1994, the International Telecommunications Union approved Recommendation V.18, which provides a method for interworking between conventional modems and the world's text telephones (TTYs). Implementation of V.18 would mean that TTY functionality would be built into data modems. Although implementation of V.18 is not a difficult challenge for a modem manufacturer, and although this specification went through an industry standardization process, to date no company has voluntarily incorporated V.18 into a modem. In this

case, Mr. Brandt's work was quietly supported by a large telecommunications company, but the industry –and even the company that quietly supported his work—did not employ V.18.

This case exemplifies a pattern often witnessed: Engineers and managers with interest and dedication may champion accessibility, but usually have no clout with which to see accessibility features through to market. Some excellent engineers and managers have risked their reputations within their companies, pushing for design solutions that would actually enlarge the market share—but not by the margins seen as viable by companies whose customer base may number in the tens or hundreds of millions.

Services. Telecommunications services must also be included in these rules. As enhanced, de-regulated services have been introduced into the marketplace, few efforts have been made to make them accessible. Network messages (e.g., "the number has been changed. The new number is...") are accessible to text telephone users in only a few places in the U.S. Call waiting and voice mail, both popular services, are similarly inaccessible. Although telecommunications equipment and software are the origin of such services, this factor will be largely unknown to people with disabilities. Services need to receive direct attention in rules from the FCC.

Service Providers. Service providers, which wield a great deal of purchasing power, need to be responsible for the accessibility of the equipment they buy. If they do so, then market forces will lead equipment manufacturers not to build inaccessible systems. In the case of digital wireless telephone systems, service providers are beginning to play an important role in encouraging manufacturers to address problems such as hearing aid interference and incompatibility with text telephones—against the backdrop of a U.S. policy on accessibility.

Phase-In Time. We believe it is appropriate to grant some reasonable lead time for the industry to implement Section 255. Implementation of government mandates for telephone relay service and television decoder circuitry were done after a phase-in period, and these were implemented smoothly and well.

Harmonization. We urge the FCC to seek harmonization of policy in international markets. Foreign manufacturers selling in the U.S. should certainly be held to the same requirements.

Industry Coordination. We support the idea of a coordinating council or forum that will focus industry-wide on improving accessibility. Such a group could develop research consortia for solutions and testing of access solutions, address technologies that spread quickly and create significant new barriers, and coordinate standards development that will facilitate implementation of Section 255.

Conclusion. The U.S. Congress enacted Section 255 as part of the Telecommunications Act so that companies would do whatever is readily achievable to improve telecommunications accessibility. The Federal Communications Commission should issue rules that cause the law to be implemented. If rules are not promulgated, the intent of the law will be circumvented. Absent clear rules, the FCC would find itself in a difficult situation in resolving complaints. The guidelines under development by the TAAC have not been completed, but they are being designed with the goal of permitting flexibility to industry in *how* it solves accessibility problems. There should be no doubt, however, as to *whether* industry should address those problems. As pointed out by the National Council on Disability, regulations will have the effect of widespread dissemination of requirements, whereas guidelines often go unnoticed.

Respectfully submitted,

Technology Assessment Program
Gallaudet University

by: Judy Harkins
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Attachment A

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